

REMARKS

Status of Claims:

Claims 13-18 and 30-33 remain cancelled. New claims 34-50 are added. Thus, claims 1-12, 19-29, and 34-50 are present for examination.

Abstract:

The abstract of the disclosure is objected to because lines 1 and 2 contain the phrase “is disclosed” which should be removed. See MPEP § 608.01(b).

The abstract of the disclosure has been amended to remove the phrase “is disclosed”, in accordance with the Examiner’s suggestion. Thus, the abstract of the disclosure is now believed to be in compliance with the requirements of MPEP § 608.01(b).

Specification:

The specification has been amended to correct a minor informality.

Claim Objection:

Claim 4 is objected to because of the following informality: the phrase “does not extend” in line 4 should be changed to “do not extend”.

Claim 4 has been amended in accordance with the Examiner’s suggestion to change the phrase “does not extend” to “do not extend”.

Claim Rejections:

Claims 1-3, 9, 19-21, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Andrade et al. (U.S. Patent Publication Number 2002/0059644) (hereinafter Andrade).

With respect to claims 1-3, 9, 19-21, and 27, as amended, the rejection is respectfully traversed.

Independent claim 1, as amended, recites an interactive enabling system for managing interactive program content associated with enhanced program content and interactive commercial content associated with commercial spots, the system comprising:

“an interactive enabling device coupled for receiving a broadcast stream, said broadcast stream including the enhanced program content in series with the commercial spots, the broadcast stream further including interactive program triggers and interactive commercial triggers for retrieving the interactive program and commercial content; and

at least one interactive content server coupled for communicating with an interactive control application in the interactive enabling device;

wherein the interactive enabling device executes the interactive control application to manage the retrieval of the interactive program and commercial content from the at least one interactive content server in response to the interactive program and commercial triggers.” (Emphasis Added)

An interactive enabling system including the above-quoted features has at least the advantage that an interactive enabling device is coupled for receiving a broadcast stream, where the broadcast stream includes enhanced program content in series with commercial spots and the broadcast stream further includes interactive program triggers and interactive commercial triggers for retrieving interactive program and commercial content. Also, the interactive enabling device executes an interactive control application to manage the retrieval of the interactive program and commercial content from at least one interactive content server in response to the interactive program and commercial triggers. Thus, an interactive enabling system including the above-quoted features allows for managing both interactive program content and interactive commercial content when a broadcast stream includes enhanced program content in series with commercial spots. (Specification; page 5, lines 2-4; FIGs. 3-4).

Andrade neither discloses nor suggests an interactive enabling system including the above-quoted features. The Examiner states that, “Andrade discloses an interactive enabling system (100 in figure 1A) and method for managing interactive program and commercial content (paragraph 0038, lines 10-13), the system comprising: an interactive enabling device coupled for receiving a broadcast stream (paragraph 0020, lines 9-14), the broadcast stream

containing interactive program triggers (paragraph 0038, lines 5-7) and interactive commercial triggers (paragraph 0028, lines 7-14) for retrieving the interactive program and commercial content (paragraph 0020, lines 10-14)". (Emphasis Added).

However, Andrade does not disclose an interactive enabling system for managing interactive program and commercial content. In FIG. 1A, Andrade discloses an interactive television system 100 with TV 104 that can receive and display TV broadcast 108 with interactive TV trigger 112. (Andrade; paragraph 0020). However, as illustrated in FIG. 1A of Andrade, the TV broadcast 108 is the TV commercial 108. (Andrade; FIG. 1A). Thus, in the system of Andrade, the TV trigger 112 is only an interactive commercial trigger for retrieving a web page from web server 118 for interactive commercial content, and Andrade neither discloses nor suggests an interactive enabling device coupled for receiving a broadcast stream, where the broadcast stream includes interactive program triggers and interactive commercial triggers for retrieving interactive program and commercial content. (Andrade; paragraphs 0020 and 0028).

Each of the portions of Andrade listed above that were cited in the Office Action are addressed, as follows, to show that none of the cited portions of Andrade disclose or suggest an interactive enabling device coupled for receiving a broadcast stream, where the broadcast stream includes interactive program triggers and interactive commercial triggers for retrieving interactive program and commercial content.

In paragraph 0020, lines 9-14, Andrade states:

"In one embodiment, TV 104 can receive and display TV broadcast 108 with interactive TV trigger 112. Interactive TV trigger 112 can be used to retrieve information from web server 118. For example, a user can select or access interactive TV trigger 112 to retrieve a web page from web server 118 for display on TV 104." (Emphasis Added).

In paragraph 0020, Andrade is describing an interactive television system 100 while referring to FIG. 1A. Andrade discloses that TV broadcast 108 is displayed with interactive TV trigger 112. In FIG. 1A, Andrade discloses that TV broadcast 108 is a TV commercial 108. Thus, paragraph 0020 along with FIG. 1A of Andrade only disclose a TV trigger 112 for

a TV commercial 108, and neither discloses nor suggests that TV 104 can receive a broadcast stream that includes both interactive program triggers and interactive commercial triggers for retrieving interactive program and commercial content.

In paragraph 0028, lines 6-14, Andrade states:

“Referring to FIG. 1B, TV 104 displays TV broadcast 108 with interactive TV trigger 112 as Universal Resource Location (URL) content ("http://www.xyz.com"). The URL location is exemplary for a website location on the Internet related to TV broadcast 108. For example, TV broadcast 108 may be a clothing store commercial and the exemplary URL location may be the location of a website owned and operated by the clothing store.” (Emphasis Added).

Similar to the disclosure of Andrade in paragraph 0020 and FIG. 1A, the disclosure in paragraph 0028 of Andrade again provides an example in which the TV broadcast 108 is a commercial and the TV trigger 112 is a URL of a location of a website owned and operated by the store that is advertised in the commercial. Thus, Andrade again simply discloses that the TV trigger 112 is an interactive commercial trigger, and neither discloses nor suggests that TV 104 can receive a broadcast stream that includes both interactive program triggers and interactive commercial triggers for retrieving interactive program and commercial content.

In paragraph 0038, lines 1-13, Andrade states:

“Insertion servers 303A and 303B interface with A/V decoder 313, A/V decoder 315 and multiplexer/encoder 314, respectively. In one embodiment, multiplexer/encoder 314 can provide ATVEF, VBI Encoding, MPEG Multiplexing, or IP encapsulation services to insert interactive content (e.g., interactive TV trigger 112) provided insertion server 303B into a broadcast data stream (e.g., TV broadcast 108). In one embodiment, the formatting and structure of the content is based on ATVEF broadcast and delivery standards. Insertion server 303A and 303B manage the delivery and insertion of interactive content into broadcast data streams content, triggers and media to the TV & data broadcast ('TV broadcast').” (Emphasis Added).

Similar to the disclosure of Andrade in FIG. 1A and in paragraphs 0020 and 0028, the disclosure in paragraph 0038 of Andrade again only mentions TV broadcast 108. As illustrated in FIG. 1A of Andrade, TV broadcast 108 is TV commercial 108, and as

disclosed in paragraph 0028 of Andrade, the interactive TV trigger 112 is a TV trigger for content related to a commercial. Thus, in paragraph 0038, Andrade again neither discloses nor suggests that TV 104 can receive a broadcast stream that includes both interactive program triggers and interactive commercial triggers for retrieving interactive program and commercial content.

Moreover, an interactive enabling system including the above-quoted features has the additional feature that an interactive enabling device is coupled for receiving a broadcast stream, where the broadcast stream includes enhanced program content in series with commercial spots. Andrade neither discloses nor suggests to have enhanced program content in series with commercial spots in a broadcast stream received by TV 104, and Andrade neither discloses nor suggests to further configure TV 104 to receive both interactive program triggers and interactive commercial triggers in the broadcast stream.

Therefore, independent claim 1, as amended, is neither disclosed nor suggested by the Andrade reference and, hence, is believed to be allowable. Because they depend from independent claim 1, dependent claims 2 and 3 are believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable.

New dependent claims 34-38 are also dependent on claim 1 and recite further distinctions, such as: (i) the interactive enabling device is configured to respond to an interactive commercial pre-trigger that has been embedded in the enhanced program content in the broadcast stream; and (ii) the interactive enabling device is configured to respond to an interactive program pre-trigger that has been embedded in one of the commercial spots in the broadcast stream.

Independent claim 9, as amended, recites an interactive enabling system for managing interactive program content associated with enhanced program content and interactive commercial content associated with commercial spots, the system comprising:

“an interactive enabling device coupled for receiving a broadcast stream generated by a broadcast sponsor and for responding to interactive program and commercial pre-triggers inserted into the broadcast stream for retrieving the interactive program and commercial content in advance of when

the content is needed, said broadcast stream including the enhanced program content and the commercial spots; and

at least one interactive content server coupled through a communication link for communicating with an interactive control application in the interactive enabling device;

wherein the interactive enabling device executes the interactive control application to manage the retrieval of the interactive program **and** commercial content in response to the interactive program and commercial pre-triggers; and

wherein the interactive enabling device is configured to respond to an interactive **commercial** pre-trigger that has been **embedded in** the enhanced **program** content in the broadcast stream.” (Emphasis Added).

An interactive enabling system including the above-quoted features has at least the advantage that an interactive enabling device is configured to respond to an interactive **commercial** pre-trigger that has been **embedded in** enhanced **program** content in a broadcast stream. By allowing for the interactive enabling device to respond to an interactive **commercial** pre-trigger that has been **embedded in** the enhanced **program** content in the broadcast stream, the interactive enabling device could, for example, begin the downloading of interactive **commercial** content during the time that the interactive enabling device is receiving the enhanced **program** content in the broadcast stream, and could pre-cache the content for the time when the associated commercial spot is displayed, so that the interactive commercial content is ready for display when the commercial spot is displayed. Thus, such a system allows for realizing efficiencies that could result by sharing a given time space to allow the interactive enabling device to respond to the interactive **commercial** pre-trigger that has been **embedded in** the enhanced **program** content in the broadcast stream while the interactive enabling device is receiving the enhanced **program** content in the broadcast stream. (Specification; page 4, lines 18-26; page 5, lines 2-7 and 13-16; page 17, line 3 to page 21, line 7; FIG. 4).

Andrade neither discloses nor suggests an interactive enabling system including the above-quoted features with an interactive enabling device that is configured to respond to an interactive **commercial** pre-trigger that has been **embedded in** enhanced **program** content in a broadcast stream. As pointed out above with respect to independent claim 1, Andrade

simply discloses a TV broadcast 108 that is a TV **commercial** 108 in which a TV trigger 112 is inserted into the TV broadcast 108 to access a webpage related to the **commercial**. (Andrade; FIG. 1A; paragraph 0028). In the system of Andrade, a TV trigger is automatically inserted into the TV broadcast data stream at a point where an element in the broadcast data stream matches with an interactive element to be retrieved by the trigger. (Andrade; FIG. 5; FIG. 7). Thus, the TV trigger for content related to a **commercial** in the system of Andrade will always be inserted into the broadcast data stream at the point in the broadcast data stream where the related **commercial** is located.

Therefore, independent claim 9, as amended, is neither disclosed nor suggested by the Andrade reference and, hence, is believed to be allowable.

New dependent claims 39-42 depend from claim 9 and recite further distinctions, such as: (i) the interactive enabling device is configured to respond to the interactive **commercial** pre-trigger by executing the interactive control application to manage the retrieval of interactive commercial content that is specified by the interactive commercial pre-trigger during a time when the interactive enabling device is receiving the enhanced **program** content in the broadcast stream; (ii) the interactive enabling device is configured to respond to an interactive **program** pre-trigger that has been **embedded in** one of the **commercial** spots in the broadcast stream; and (iii) the interactive commercial pre-trigger **occurs earlier in the broadcast stream** than a commercial spot of the commercial spots that is associated with the interactive commercial pre-trigger.

Independent claim 19 recites a method with features similar to features of an interactive enabling system of independent claim 1 and, thus, is believed to be allowable for at least the same reasons that independent claim 1 is believed to be allowable. Because they depend from independent claim 19, dependent claims 20 and 21 are believed to be allowable for at least the same reasons that independent claim 19 is believed to be allowable.

Independent claim 27 recites a method with features similar to features of an interactive enabling system of independent claim 9 and, thus, is believed to be allowable for at least the same reasons that independent claim 9 is believed to be allowable.

Claims 4 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrade in view of Park et al. (U.S. Patent Number 6,460,180) (hereinafter Park).

With respect to claims 4 and 22, as amended, the rejection is respectfully traversed.

Dependent claim 4, as amended, recites an interactive enabling system with the further distinction:

“wherein the interactive enabling device is configured for receiving and responding to event and time-driven triggers embedded in the broadcast stream to **ensure** that the interactive **program and commercial** content **do not extend beyond specified time limits, overlap, or otherwise interfere with each other.**” (Emphasis Added).

Neither Andrade nor Park, alone or in combination, disclose or suggest an interactive enabling system including the above-quoted features with an interactive enabling device that is configured for receiving and responding to event and time-driven triggers embedded in a broadcast stream to **ensure** that interactive **program and commercial** content **do not extend beyond specified time limits, overlap, or otherwise interfere with each other.**

The Examiner recognizes that, “Andrade fails to disclose event and time-driven triggers embedded in the broadcast stream to avoid interference between the interactive and commercial content.” (Emphasis Added). The Examiner then states that, “Park discloses that the interactive enabling device is configured for receiving and responding to event and time-driven triggers embedded in the broadcast stream to ensure that the interactive program and commercial content does not extend beyond specific time limits, overlap, or otherwise interfere with each other (column 4, lines 31-37).” (Emphasis Added).

First, it should be noted that, as with the Andrade reference, the Park reference neither discloses nor suggests an interactive enabling system for responding to **both** interactive **program and commercial** triggers in a broadcast stream.

Second, the system of Park simply allows for a user to select whether or not an enhancement is to be displayed, and once an enhancement is displayed in the system of Park,

the system of Park does not control a time for display of the enhancement. The Examiner points to Park, column 4, lines 31-37, which states:

“In one embodiment, an icon for an enhancement afforded by the trigger appears on the screen of the receiver unit. If the viewer selects the icon using the remote control unit of the receiver unit, then the enhancement will be displayed. If the viewer does not select the icon within a certain amount of time, then the icon disappears and the enhancement is not displayed.” (Emphasis Added).

As is evident from the above-quoted passage of Park, in one embodiment of the system of Park, an icon for an enhancement is displayed on a screen for a certain amount of time, and if the user does not select the icon, then the enhancement is not displayed. However, if the icon is selected, then the enhancement is displayed on the screen, and the system of Park does not control a time for display of the enhancement. The icon in the system of Park is only a prompt to ask the viewer if the viewer wants to activate the enhancement, and the icon is not the enhancement. (Park; FIG. 11; step 1110; column 9, lines 3-11). Thus, the icon in the system of Park is not interactive program or commercial content, but is merely a prompt to determine if a user wants to display interactive program content. As a consequence, the system of Park is not able to ensure that interactive program and commercial content do not extend beyond specific time limits, overlap, or otherwise interfere with each other.

Therefore, dependent claim 4, as amended, is neither disclosed nor suggested by the Andrade and Park references and, hence, is believed to be allowable. The Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Dependent claim 22 recites a method with features similar to features of a system of dependent claim 4 and, thus, is believed to be allowable for at least the same reasons that dependent claim 4 is believed to be allowable.

Claims 5-7 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrade in view of Zigmond et al. (U.S. Patent Number 6,698,020) (hereinafter Zigmond).

With respect to claims 5-7 and 23-25, the rejection is respectfully traversed.

The Examiner states that, “Andrade discloses an interactive enabling system and method for managing interactive program and commercial content.” (Emphasis Added). However, as discussed above with respect to claim 1, Andrade does not disclose an interactive enabling system and method for managing interactive program and commercial content. Moreover, Zigmond does not cure the deficiency with respect to the teaching of Andrade, because Zigmond is only concerned about inserting advertisements into a video programming feed and does not even consider interactive program or commercial content. (Zigmond; abstract). The system of Zigmond allows for advertisements to be targeted to specific viewers by inserting advertisements into a video programming feed at the household level. (Zigmond; abstract). However, it should be noted that Zigmond does not even consider interactive commercial content to display along with the advertisements, but is only concerned about the advertisements themselves. (Zigmond; abstract).

Therefore, dependent claims 5-7 and 23-25 are neither disclosed nor suggested by the Andrade and Zigmond references and, hence, are believed to be allowable. The Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrade in view of Gadkari et al. (U.S. Patent Publication Number 2002/0078443) (hereinafter Gadkari).

With respect to claims 8 and 26, as amended, the rejection is respectfully traversed.

Dependent claim 8, as amended, recites the system as recited in claim 1, further comprising:

“a plurality of additional interactive enabling devices in addition to said interactive enabling device, each of said plurality of additional interactive enabling devices coupled for receiving the broadcast stream;

wherein the interactive enabling device and each of the additional interactive enabling devices includes a corresponding randomizer for randomly time-skewing the retrieval of the interactive program and commercial content in response to the interactive program and commercial triggers.” (Emphasis Added).

Neither Andrade nor Gadkari, alone or in combination, disclose or suggest an interactive enabling system including the above-quoted features with an interactive enabling device and each of additional interactive enabling devices including a corresponding **randomizer** for **randomly time-skewing** the **retrieval** of interactive program and commercial content in response to interactive program and commercial triggers.

The Examiner recognizes that, “Andrade **fails to disclose** the interactive device including a random time-skewing for the retrieval of the interactive program and commercial content.” (Emphasis Added). The Examiner then states that, “Gadkari discloses that the interactive enabling device includes a **randomizer** for **randomly time-skewing** the **retrieval** of the interactive program and commercial content in response to the interactive program and commercial triggers (paragraph 0055, lines 1-8)”. (Emphasis Added).

However, in the system of Gadkari, the **receiver** 20 does not include a **randomizer** for **randomly time-skewing** the **retrieval** of interactive program and commercial content in response to interactive program and commercial triggers. (Gadkari; FIG. 1). The system of Gadkari allows for a presentation to be preempted and then for a preempting presentation to be displayed. (Gadkari; paragraph 0054). At the end of the preempting presentation’s content, the system of Gadkari allows for play to return to the original presentation at the point where it was preempted. (Gadkari; paragraph 0054). In the system of Gadkari, file sends and triggers that were scheduled to occur during the time of interruption are postponed **by the sender** and time shifted to after the end of the interruption presentation. (Gadkari; paragraph 0055). Because the length of the interrupting presentation may not be known beforehand in the system of Gadkari, the amount of time shift **by the sender** may need to be dynamically **computed** once the interrupting session expires or has been deleted. (Gadkari; paragraph 0055).

Thus, in the system of Gadkari, the **receiver** 20 does not include a **randomizer** for **randomly time-skewing** the **retrieval** of interactive program and commercial content in response to interactive program and commercial triggers. Instead, the **sender** time shifts the file sends and triggers to **after the end of an interrupting process**. (Gadkari; paragraph 0055). As a consequence, if there were multiple receivers in the system of Gadkari, there would be

no way to randomly time skew at each receiver the retrieval of interactive program and commercial content in response to interactive program and commercial triggers, but rather, all of the receivers would try to start the retrieval of content at the same time upon receiving a trigger from the sender. Moreover, in the system of Gadkari, even the time shift by the sender is not random, but is computed based on the length of the interrupting presentation once the interrupting session expires or has been deleted. (Gadkari; paragraph 0055).

Therefore, dependent claim 8, as amended, is neither disclosed nor suggested by the Andrade and Gadkari references and, hence, is believed to be allowable. The Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Dependent claim 26, as amended, recites a method with features similar to features of a system of dependent claim 8 and, hence, is believed to be allowable for at least the same reasons that dependent claim 8 is believed to be allowable.

Claims 10, 11, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrade in view of Markel (U.S. Patent Number 6,791,579).

With respect to claims 10, 11, and 28, as amended, the rejection is respectfully traversed.

Claims 10 and 11 depend from independent claim 9. Claim 28 depends from independent claim 27. Markel does not cure the deficiency with respect to the teaching of Andrade that was discussed above with respect to claim 9 and that also applies to claim 27, because Markel also neither discloses nor suggests an interactive enabling system including an interactive enabling device that is configured to respond to an interactive commercial pre-trigger that has been embedded in enhanced program content in a broadcast stream. Instead, Markel only discloses embedding triggers into streaming media files. (Markel; abstract).

Therefore, dependent claims 10, 11, and 28, as amended, are neither disclosed nor suggested by the Andrade and Markel references and, hence, are believed to be allowable. The Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Claims 12 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrade in view of Gadkari.

With respect to claims 12 and 29, as amended, the rejection is respectfully traversed.

The Examiner recognizes that, “Andrade fails to disclose the interactive enabling device including a random time-skewing for the retrieval of the interactive program and commercial content.” (Emphasis Added). The Examiner then states that, “Gadkari discloses that the interactive enabling device includes a randomizer for randomly time-skewing the retrieval of the interactive program and commercial content in response to the interactive program and commercial pre-triggers (paragraph 0055, lines 1-8).

However, as explained above with respect to claim 8, in the system of Gadkari, the receiver 20 does not include a randomizer for randomly time-skewing the retrieval of interactive program and commercial content in response to interactive program and commercial triggers. (Gadkari; FIG. 1). Instead, in the system of Gadkari, the sender time shifts the file sends and triggers to after the end of an interrupting process. (Gadkari; paragraph 0055). As a consequence, if there were multiple receivers in the system of Gadkari, there would be no way to randomly time skew at each receiver the retrieval of interactive program and commercial content in response to interactive program and commercial triggers, but rather, all of the receivers would try to start the retrieval of content at the same time upon receiving a trigger from the sender. Moreover, in the system of Gadkari, even the time shift by the sender is not random, but is computed based on the length of the interrupting presentation once the interrupting session expires or has been deleted. (Gadkari; paragraph 0055).

Therefore, dependent claims 12 and 29 are neither disclosed nor suggested by the Andrade and Gadkari references and, hence, are believed to be allowable. The Patent Office has not made out a *prima facie* case of obviousness under 35 U.S.C. 103.

Conclusion:

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

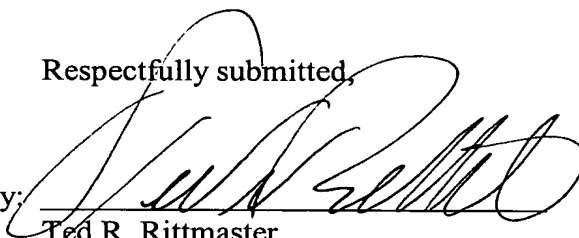
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

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